

REMARKS

After the foregoing amendment, claims 1-9 are pending in this application. Claim 1 has been amended to clarify the location of the slot and the location of the second wall. Support for this amendment may be found, for example, on page 3, lines 23-25 of the specification. Claim 3 has been amended to clarify a first shoulder resting against a first wall of the slot. Support for this amendment may be found, for example, on page 5, lines 12-13 of the specification. Claim 4 has been amended to clarify a second shoulder resting against a second wall of the slot. Support for this amendment may be found, for example, on page 5, line 13 of the specification.

Page 3, lines 14-15 and line 23, page 5, lines 24-25, and page 6, lines 7-9 of the specification have been amended to correct any typographic or idiomatic errors. Replacement drawing sheets of Figure 1 and Figure 6a are attached. Figure 1 has been amended to clarify lead lines and add a cross-section reference line. Figure 6a now includes a cross-section reference line. Accordingly, no new matter has been added.

Objections to the Specification

The Examiner has objected to specific recitations of the specification. The Examiner contends that the recitation “a hexagon hole 14 for accepting a Phillips screw head” appears to be a typographical error. The Examiner also contends that a recitation, specifying that the bearing 8 may have an ovular or unsymmetrical cross section, is incorrect because such a feature would inhibit rotation of the bearing. Applicants respectfully traverse these objections in view of the foregoing amendments.

Page 3, line 23 of the specification has been amended to clearly recite that the worm gear 7 is shown schematically in Figure 1. Page 5, lines 24-25 of the specification have been amended to clearly recite that the outer threaded end 13 of the bearing 8 contains an indentation marked with a tool interface, such as a hexagon hole 14 or a cross 15, for insertion of a Philips screw head. Thus, the specification now clearly claims to preferable indentation marks for the threaded end 13 of the bearing 8. On page 6, the recitation previously found in lines 7-9, specifying that the bearing 8 may have an ovular on unsymmetrical cross section, as opposed to a

cylindrical one, has been deleted. Accordingly, reconsideration and withdrawal of these objections are respectfully requested.

Objections to the Drawings

The Examiner has objected to the drawings for various reasons. The Examiner contends that Line 2-2 of Figure 1 is not shown, the lead lines for reference characters 2 and 4 of Figure 1 are unclear, that the worm gear 7 is not shown as having helical teeth in Figure 1, and finally, that the drawings do not show that “said second shoulder rests against an outer wall of said slot,” as stated in claim 4. Applicants respectfully traverse the first three objections in view of the foregoing amendments and replacement drawing sheet, which includes Figure 1. Applicants respectfully but strenuously traverse the last objection in view of Figure 4 and amended claim 4.

Figure 1, included in the attached replacement drawing sheet, now clearly shows a cross-section reference line 2-2, extending part of the length of the housing of the window operator. Figure 1 also clearly shows the lead lines for reference characters 2 and 4 and the features represented by each. Finally, Figure 1 now shows worm gear 7 in schematical form. Accordingly, reconsideration and withdrawal of these objections are respectfully requested.

Amended claim 4 now recites, inter alia, said second shoulder rests against a second wall of said slot. Figure 4 clearly identifies a first shoulder 10b of bearing 8 resting against a first wall of slot 2, or a surface of the top part 21a of the housing, and a second shoulder 11b of bearing 8 resting against a second wall of slot 2, or the interior support surface of base 20 of the housing. Thus, the drawings clearly show the second shoulder resting against a second wall of the slot, as stated in claim 4. Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Figure 6a has been amended to include a cross-section reference line 5-5.

Claim Rejections – U.S.C. § 112, second paragraph

The Examiner has rejected claims 1, 3 and 4 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner states that the term “about” in claim 1 is a relative term that is not defined by the claim, thereby rendering the claim indefinite. With regard to claim 3, the Examiner states that the term “inner wall” is indefinite and not defined by the

language of the claim. With regard to claim 4, the Examiner states that the term “outer wall” is indefinite and not defined by the language of the claim. Applicants respectfully traverse these rejections in view of the foregoing amendment.

The term “about” has been omitted from amended claim 1 to clarify that the slot extends part of the length of the housing of the window operator and that the second wall of the bearing is located within this slot. The term “inner” has been omitted from amended claim 3 to clarify that the first shoulder of the bearing rests against a first wall of the slot. A first wall of the slot is clearly identifiable in Figures 3-4. The term “outer” has been omitted from amended claim 4 to clarify that the second shoulder of the bearing rests against a second wall of the slot. A second wall of the slot is clearly identifiable in Figures 3-4. Amended claims 1, 3 and 4 now distinctly claim the subject matter which Applicants regard as the invention. For this reason, it is respectfully submitted that claims 1, 3 and 4, as amended, are in full compliance with 35 U.S.C. § 112, second paragraph. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Claim Rejection – 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-9 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Number 5,802,913 (“Winner”) in view of U.S. Patent Number 2,337,913 (McClearn). The Examiner contends that Winner discloses a window operator comprising a housing having many of the same components as disclosed by the presently claimed invention, including a bore with a closed inner end, a bearing with a smooth end having first and second walls forming first and second shoulders, a slot located about the second wall and extending part of the length of the housing, and an operator arm disposed therein. The Examiner further contends that Winner discloses a bore having a first wall with a smaller diameter than a second wall, a first shoulder resting against an inner wall of the slot, and a second shoulder resting against an outer wall of the slot.

The Examiner acknowledges that Winner fails to disclose a bore with an outer threaded end and a bearing with an opposite threaded end threaded into said threaded end. However, the Examiner contends that McClearn discloses a bore with an outer threaded end. The Examiner contends that it would have been obvious to one of having ordinary skill in the art at the time the invention was made to modify Winner in view of McClearn to use the bore with an outer

threaded end to make a bearing assembly allowing easy operation of a window or door.

Applicants respectfully but strenuously traverse these rejections for the reasons set forth below.

The presently claimed invention is directed to an adjustable threaded bearing and bearing assembly for use with a window operator. The bearing assembly comprises a housing having a bore with a closed inner end and an outer threaded end. A bearing having a smooth end and a threaded end fits into the bore so that the smooth end rests within the closed inner end of the bore and the threaded end of the bearing is threaded into the outer threaded end of the bore. The smooth end of the bearing has a first and second wall which form a first and second shoulder. The housing further comprises a slot which extends part of the length of the housing and is designed to accommodate an operator arm for opening and closing a window.

Referring to Figures 1 and 5 of Winner, Winner discloses a window operator having a top cover 11, a base 12, an actuating arm 13, and a worm gear 14. A cylindrical pivot pin 22 is upstanding on the base 12. The actuating arm 13 has a rounded tooth-gear portion 34 having an aperture 35 therethrough for receiving the pin 22. The actuating arm 13 is mounted on the base 12 by means of the pin 22, so that the gear portion 34 is in driving relationship with the worm gear 14. The upper end 102 of the pin 22 is positioned in a hole 103 in the top cover 11. The pin 22 is connected to the top cover 11 by means of adhesives, rather than by a threaded bearing. As can be seen in Figure 5, a gap exists between the top cover 11 and the actuating arm 13. The Examiner has interpreted Figure 5 of Winner as reflecting the upper end 102 of the pin 22 to be the closed inner end of the bore, however, this is an incorrect interpretation. The closed inner end of the bore is actually represented by the receiving hole 103 in the top cover 11.

Referring to Figures 1 and 5, McClearen discloses a window or door operator including a housing 23 having a bottom wall 24, top wall 26, and upstanding marginal walls 25. A pivot member (screw) 29 extends downward through the top wall 26 and threads into an upstanding hub 28. A gear segment 30 rotates about the pivot member 29 and rests on the hub 28. The gear segment 30 also has an upstanding hub 32 which abuts the top wall 26 of the housing 23 in order to ensure the gear segment 30 meshes with a worm gear 31.

Contrary to the Examiner's contentions, modifying Winner in view of McClearen would not result in a device comprising a bore with an outer threaded end, as disclosed by the presently claimed invention. The presently claimed invention discloses a bearing having a smooth end to be located in a bore's closed inner end, disposed in the top part of the housing, and a threaded

end to be located in a bore's outer threaded end, disposed in the based of the housing. The bearing is tightened, thereby securing the operator within the slot, by means of a screw to be inserted from the base of the housing through the threaded end of the bore.

In contrast, Winner discloses a bearing, with a smooth end connected to the upper lid of the housing by means of adhesives at the closed inner end of a bore, upon which an actuating arm is mounted. Combining Winner with McClearen would require the McClearen screw 29 to be inserted through the Winner base 12, since the Winner top cover 11 contains the closer inner end of the Winner bore 103 for receiving the upper end 102 of the Winner pin 22 (see Figure 5 of Winner and Figure 5 of McClearen). This would result in a device with a housing having a bore with a *closed inner* threaded end, located at the top of the housing, and an *open outer, unthreaded* end, located at the bottom of the housing.

Further, such a combination would result in a device having a bearing with a smooth side, located in the outer end of the bore, and an opposite side threaded into said closed inner threaded end of said bore, located in the upper lid of the housing. Additionally, the smooth end of the bearing would only have a first wall, and thus, first and second shoulders would not be formed by Winner in view of McClearen. In contrast, claim 1 of the presently claimed invention recites, *inter alia*, a housing having a bore with a *closed inner end and an outer threaded end*, a bearing having a smooth end and an opposite end threaded into said threaded end, *said smooth end having first and second walls forming first and second shoulders* (italics, emphasis added).

Thus, Applicants respectfully submit that the proposed combination of prior art references fails to teach or suggest essential features of the bearing assembly of the presently claimed invention. Thus, these prior art references are distinct from the presently claimed invention and a combination of these references would not obviously yield the presently claimed device. Claims 2-9 are patentable due to their depending on claim 1. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the present Application, including claims 1-9, as amended, are in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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Enclosure – Petition for Extension of Time (one month)
Replacement Sheets